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Hawkesbury, ON  
K6A 1K7  
Canada

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**D4610-1**  
**Job Sheet 190349**



**Part No:** D4610-1

**Job Qty:** 8 pcs

**Part Name:** Doubler



**Part Weight:** 0 lbs

**Status:** New

**Priority:** Medium

**Job Created:** 2/7/19

**Job Tracking No:**

**Due Date:** 3/11/19

**Created By:** Marie Lajeunesse

**Type:** Stock

**Description:**

**Note:** DWG REV B SHEET 1 IPP REV:A NEW ISSUE 12-03-22 JLM VERIFIED BY:EC IPP REV:B 12.04.20 as per dwg rev.B DD verf:EC

**Ship Via:**

### Bill of Materials

### Job Routing

| Op No | Operation                     | Qty   | Start Date | Due Date | Standard  |         | Workcenter/Supplier      |           | Sign-off   |
|-------|-------------------------------|-------|------------|----------|-----------|---------|--------------------------|-----------|------------|
|       |                               |       |            |          | Setup Hrs | Run Hrs | Workcenter / Supplier    | Lead Time |            |
| 100   | Waterjet - Flow - 1           | 8 pcs | 3/11/19    | 3/11/19  | 0.00      | 0.78    | Waterjet - Flow          |           | 2019/03/04 |
| 120   | QC 8                          | 8 pcs | 3/11/19    | 3/11/19  | 0.00      | 0.00    | QC 8 - 12                |           |            |
|       |                               |       |            |          |           |         | QC 8 - 14                |           |            |
|       |                               |       |            |          |           |         | QC 8 - 17                |           |            |
|       |                               |       |            |          |           |         | QC 8 - 20                |           |            |
|       |                               |       |            |          |           |         | QC 8 - 25                |           |            |
|       |                               |       |            |          |           |         | QC 8 - 3                 |           |            |
|       |                               |       |            |          |           |         | QC 8 - 32                |           |            |
|       |                               |       |            |          |           |         | QC 8 - 33                |           |            |
|       |                               |       |            |          |           |         | QC 8 - 35                |           |            |
|       |                               |       |            |          |           |         | QC 8 - 39                |           |            |
|       |                               |       |            |          |           |         | QC 8 - 4                 |           |            |
|       |                               |       |            |          |           |         | QC 8 - 44                |           |            |
|       |                               |       |            |          |           |         | QC 8 - 45                |           |            |
|       |                               |       |            |          |           |         | QC 8 - 49                |           |            |
|       |                               |       |            |          |           |         | QC 8 - 58                |           |            |
|       |                               |       |            |          |           |         | QC 8 - 8                 |           |            |
|       |                               |       |            |          |           |         | QC 8 - 9                 |           |            |
|       |                               |       |            |          |           |         | QC 8 - 68                |           |            |
|       |                               |       |            |          |           |         | QC 8 - 67                |           |            |
|       |                               |       |            |          |           |         | QC 8 - 1 (A)             |           |            |
|       |                               |       |            |          |           |         | QC 8 - 47                |           |            |
| 160   | Handfinish - 1-1 Chemical-B4B | 8 pcs | 3/11/19    | 3/11/19  | 0.00      | 0.31    | Handfinish - 1 - 1 - B4B |           |            |
|       |                               |       |            |          |           |         | Handfinish - 1 - 2 - B4B |           |            |
|       |                               |       |            |          |           |         | Handfinish - 1 - 3 - B4B |           |            |
|       |                               |       |            |          |           |         | Handfinish - 1 - 4 - B4B |           |            |
|       |                               |       |            |          |           |         | Handfinish - 1 - 5 - B4B |           |            |
|       |                               |       |            |          |           |         | Handfinish - 1 - 6 - B4B |           |            |
|       |                               |       |            |          |           |         | Handfinish - 1 - 7 - B4B |           |            |
|       |                               |       |            |          |           |         | Handfinish - 1 - 8 - B4B |           |            |

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MAR 5 2019

|                                 |       |         |           |                           |              |
|---------------------------------|-------|---------|-----------|---------------------------|--------------|
|                                 |       |         |           | Handfinish - 1 - 9 - B4B  |              |
|                                 |       |         |           | Handfinish - 1 - 10 - B4B | D.R 19/03/05 |
|                                 |       |         |           | Handfinish - 1 - 11 - B4B |              |
|                                 |       |         |           | Handfinish - 1 - 12 - B4B |              |
|                                 |       |         |           | Handfinish - 1 - 13 - B4B |              |
|                                 |       |         |           | Handfinish - 1 - 14 - B4B |              |
|                                 |       |         |           | Handfinish - 1 - 15 - B4B |              |
|                                 |       |         |           | Handfinish - 1 - 16 - B4B |              |
|                                 |       |         |           | Handfinish - 1 - 17 - B4B |              |
|                                 |       |         |           | Handfinish - 1 - 18 - B4B |              |
|                                 |       |         |           | Handfinish - 1 - 19 - B4B |              |
|                                 |       |         |           | Handfinish - 1 - 20 - B4B |              |
|                                 |       |         |           | Handfinish - 1 - 21 - B4B |              |
|                                 |       |         |           | Handfinish - 1 - 22 - B4B |              |
| 170 QC 7                        | 8 pcs | 3/11/19 | 0.00 0.00 | QC 7 - 10                 |              |
|                                 |       |         |           | QC 7 - 13                 |              |
|                                 |       |         |           | QC 7 - 14                 |              |
|                                 |       |         |           | QC 7 - 15                 |              |
|                                 |       |         |           | QC 7 - 17                 |              |
|                                 |       |         |           | QC 7 - 18                 |              |
|                                 |       |         |           | QC 7 - 19                 |              |
|                                 |       |         |           | QC 7 - 2                  |              |
|                                 |       |         |           | QC 7 - 28                 |              |
|                                 |       |         |           | QC 7 - 3                  |              |
|                                 |       |         |           | QC 7 - 30                 |              |
|                                 |       |         |           | QC 7 - 34                 |              |
|                                 |       |         |           | QC 7 - 36                 |              |
|                                 |       |         |           | QC 7 - 37                 |              |
|                                 |       |         |           | QC 7 - 41                 |              |
|                                 |       |         |           | QC 7 - 47                 |              |
|                                 |       |         |           | QC 7 - 48                 |              |
|                                 |       |         |           | QC 7 - 51                 |              |
|                                 |       |         |           | QC 7 - 58                 |              |
|                                 |       |         |           | QC 7 - 59                 |              |
|                                 |       |         |           | QC 7 - 6                  |              |
|                                 |       |         |           | QC 7 - 60                 |              |
|                                 |       |         |           | QC 7 - 9                  |              |
|                                 |       |         |           | QC 7 - 68                 | MAR 05 2019  |
|                                 |       |         |           | QC 7 - 50                 |              |
|                                 |       |         |           | QC 7 - 67                 |              |
| 180 Packaging 3-1 - Stock - B4B | 8 pcs | 3/11/19 | 0.00 0.00 | Packaging 3 - 1 - B4B     |              |
|                                 |       |         |           | Packaging 3 - 2 - B4B     |              |
|                                 |       |         |           | Packaging 3 - 3 - B4B     |              |
|                                 |       |         |           | Packaging 3 - 4 - B4B     |              |
|                                 |       |         |           | Packaging 3 - 5 - B4B     |              |
|                                 |       |         |           | Packaging 3 - 6 - B4B     |              |
|                                 |       |         |           | Packaging 3 - 7 - B4B     |              |
|                                 |       |         |           | Packaging 3 - 8 - B4B     |              |

|                            |                       |                         |                  |                                                                                                                                                                                                                                                                                  |                         |                    |                         |                  |                  |
|----------------------------|-----------------------|-------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|--------------------|-------------------------|------------------|------------------|
|                            |                       |                         |                  | Packaging 3 - 9 - B4B                                                                                                                                                                                                                                                            |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 10 - B4B                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 11 - B4B                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 12 - B4B                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 13 - B4B                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 14 - B4B                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 15 - B4B                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 16 - B4B                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 17 - B4B                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 18 - B4B                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 19 - B4B                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 20 - B4B                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 21 - B4B                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 22 - B4B                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 23 - B4B                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 24 - B4B                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 25 - B4B                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 26 - B4B                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 27 - B4B                                                                                                                                                                                                                                                           | ST-104 ST MAR 05 2019   |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 28 - B4B                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 29 - B4B                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 30 - B4B                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 31 - B4B                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 32 - B4B                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 33 - B4B                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 34 - B4B                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | Packaging 3 - 35 - B4B                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | 190 QC 21 - SA                                                                                                                                                                                                                                                                   | 8 pcs                   | 3/11/19            | 0.00 0.00               | QC 21 - SA - 21  | DAG              |
|                            |                       |                         |                  |                                                                                                                                                                                                                                                                                  |                         |                    |                         | QC 21 - SA - 70  | 21               |
|                            |                       |                         |                  |                                                                                                                                                                                                                                                                                  |                         |                    |                         | QC 21 - SA - 53  | 9-85 MAR 06 2019 |
|                            |                       |                         |                  | Part Op 120 - (QC8- Inspect parts - second check)<br>Descriptions: 160 - (Chemical Conversion Coat per QSI005 4.1)<br>170 - (QC7-Inspect Chemical Conversion Coat)<br>180 - (Identify as per dwg & Stock Location: _____)<br>190 - (QC21- Final Inspection - Work Order Release) |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | <b>Job BOM</b>                                                                                                                                                                                                                                                                   |                         |                    |                         |                  |                  |
|                            |                       |                         |                  | <b>Part / Item</b>                                                                                                                                                                                                                                                               | <b>Component Name</b>   | <b>Quantity</b>    | <b>Operation</b>        | <b>Container</b> |                  |
|                            |                       |                         |                  | M2024T3S.040                                                                                                                                                                                                                                                                     | 2024-T3 .040 Sheet      | .9200 sf (.115 ea) | 100-Waterjet - Flow - 1 |                  |                  |
|                            |                       |                         |                  | <b>Job Allocations</b>                                                                                                                                                                                                                                                           |                         |                    |                         |                  |                  |
| <b>Operation</b>           | <b>Component Part</b> | <b>Required</b>         | <b>Inventory</b> | <b>Allocated</b>                                                                                                                                                                                                                                                                 |                         |                    |                         |                  |                  |
| 100-Waterjet - Flow - 1    | M2024T3S.040          | 1                       | 0                | 0                                                                                                                                                                                                                                                                                |                         |                    |                         |                  |                  |
| <b>Part Specifications</b> |                       |                         |                  |                                                                                                                                                                                                                                                                                  |                         |                    |                         |                  |                  |
| <b>Spec No</b>             | <b>Description</b>    | <b>Target/Tolerance</b> | <b>Limits</b>    | <b>Type</b>                                                                                                                                                                                                                                                                      | <b>Special Comments</b> |                    |                         |                  |                  |
| 1                          | Doubler               | 2.930Inches ± 0.030     | 2.960<br>2.900   |                                                                                                                                                                                                                                                                                  |                         |                    |                         |                  |                  |
| 2                          | Doubler               | 5.500Inches ± 0.030     | 5.530<br>5.470   |                                                                                                                                                                                                                                                                                  |                         |                    |                         |                  |                  |
| 3                          | Doubler               | 0.040Inches ± 0.010     | 0.050<br>0.030   |                                                                                                                                                                                                                                                                                  |                         |                    |                         |                  |                  |

Plex 2/7/19 11:48 AM Dart.lajeunesse.marie



Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------|--|
| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                        |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Sequence #:                                                                                                                       | QTY Affected :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | MRB (QSI042)           |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                   | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | Completed By           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | Lead hand / Supervisor |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | QC / QA Coordinator    |  |
| <b>Root Cause</b><br><br><div style="display: flex; flex-direction: column; align-items: flex-start;"> <div>Operator <input type="checkbox"/></div> <div>Manufacturing Process <input type="checkbox"/></div> <div>Equip/Tooling <input type="checkbox"/></div> <div>Handling/Presservation <input type="checkbox"/></div> <div>Material <input type="checkbox"/></div> <div>Product Improvement <input type="checkbox"/></div> <div>Process Improvement <input type="checkbox"/></div> <div>Human Factors <input type="checkbox"/></div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> <div style="width: 50%;"> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div style="width: 50%;"> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div style="width: 50%;"> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |  |                        |  |
| Other/Details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |



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Container No: S158708



Part: D4610-1

Job No: 190349

Serial No/Batch: S158708

Revision:

Inspector:

Exp Date:

Instructions: Various STC's

Date: 03/04/19